REMARKS

The application has been amended and is believed to be in condition for allowance.

Claims 1-3, 5-6, and 8-19 are pending. Claims 1 and 13 are independent.

The claims were provisionally rejected under the judicially create doctrine of obviousness-type double patenting over claims 1-43 of co-pending Application No. 10/287,359 in view of PECH et al. 5,812,397.

The necessary terminal disclaimer to overcome the rejection is attached.

Claims 1-3, 5-6, and 8-9 stand rejected as obvious over BABULA et al. 6,509,914.

Claims 13-19 stand rejected as obvious over BABULA et al. in view of PECH et al.

Claim 1 has been amended to specifically recite a medical imaging apparatus. Medical imaging apparatuses are high tech apparatuses, having a physician operator or a trained medical assistant operator. See specification page 1, the end of the last full paragraph. Such user/operators would not be expected to have the time or capability to replace components of complex imaging systems. The applied references are not seen as teaching operator **replacement** of faulty equipment imaging apparatus components, the faulty equipment components having been independently identified by the equipment itself.

Claim 1 has also been amended to recite that the means for dealing with problems is self-determining and free of medically trained user input. This recitation is acknowledged by the Official Action to be not disclosed by BABULA et al. (page 7, "BABULA et al. '914 do not teach a self-test means for determining when a problem affecting the medical apparatus occurs.") In view of this, the anticipation rejection should be withdrawn, leaving only the obviousness rejection in view of PECH et al.

As to PECH et al., the teaching seems directed to self-test of PC boards rather than to components of a medical imaging apparatus. The teachings of PECH et al. would not suggest to one of skill in medical imaging apparatus to self-test and prompt for user exchange of faulty system components.

Claim 1 also recites that the means for dealing with problems displays a self-initiated request to exchange this self-change component. Any display of a problem by BABULA et al. is not self-initiated by the machine but is a result of the operator driven test sequence. Further, BABULA et al. stop short of displaying a **request** to **exchange** the self-change component as BABULA et al. only identify the malfunctioning component. Applicant does see any recognition in the applied references that a user/operator might be able to exchange components and to prompt user to perform the needed exchange. This is especially true when considering the complexity of imaging apparatuses.

In order to distinguish the operator to medical personal, as discussed above, claim 1 has also been amended to recite that the apparatus user is a physician or an imaging apparatus trained medical assistant.

The invention in general is recited by claim 1 as addressing the occurrence of a problem affecting a medical **imaging** apparatus by providing a **self-test** means for dealing with such problems by firstly, **self-determining** the (those) component(s) that is (are) the cause of the problem, and secondly, displaying the problem component(s) on a display device.

The present invention, however, enables the operator to be notified of problems with self-change components, and that the user should exchange the self-change component. The medical imaging apparatus of the present invention determines which component is the cause of a problem and displays the problem-causing component on a display device so as to advise the operator and allow the operator to take action, if the component is a self-change component.

To even further simplify the operator's resolution of the problem, the present invention provides that the self-change component is automatically ordered via telecommunications means.

The Official Action indicates that BABULA et al. Figure 10 illustrates a system wherein description is provided on how to correct the problem with respect to the medical apparatus

(Official Action page 4, first paragraph). BABULA et al. disclose a problem-solution resource system for medical diagnostic equipment. However, as outlined in the abstract, BABULA et al. disclose providing problem and solution information, such as that relating to a particular application or protocol, to medical diagnostic institutions and systems. That is, BABULA et al. disclose an "expert system" database which is a reference responsive to a user's questions.

The present invention includes a problem solution tool as an integral portion of the medical apparatus. In contrast to the prior art, the present invention provides the new function of allowing the operator of the medical imaging apparatus to be notified of a problem and then to replace malfunctioning components instead of requiring a service man's involvement.

As discussed above, BABULA et al., through these figures, only is a tool for the user to determine the problem. One cannot fairly say that the recitation of self-determining the component that is the cause of a problem and initiating a replacement request reads on BABULA et al.'s listing of plural possible causes of a problem.

Further, that BABULA et al. teach plural possible causes and offer solutions to those causes, cannot be said to be read on by the recitation "the means of which for dealing with problems display a self-initiated request to exchange this self-change component." This recitation indicates the active display

of a request, by the 'means for dealing', to exchange a particular self-change component. BABULA et al. Figure 10 does not self-initiate a request that a specific component be exchanged but only explains how one component, of several, may be evaluated and corrected.

The claim recites more than a database of possible solutions when the recitation is of determining a problem-causing component and displaying a request to exchange the problem-causing, self-change component.

Claim 1 has also been amended to recite that the 'means for dealing' itself orders the self-change component via telecommunication means. The Official Action offers BABULA et al. column 9, lines 5-13. This passage does not disclose that recited. The passage only refers to telecommunications generally and that responses within the system to user requests may be automated (see lines 1 *et seq.*). There is, however, no disclosure of the 'means for dealing' ordering the self-change component needing replacement.

In view of these differences between the present invention, as recited by claim 1, and BABULA et al., claim 1 and the claims depending therefrom are believed to be non-obvious. Accordingly, reconsideration and allowance of claim 1 are respectfully requested.

Claim 9 has been amended (see specification page 7) consistent with the claim 1 limitation of a medical imaging

apparatus to recite that the plural self-change include any one of an x-ray radiation source, a radiation detector system, a high-voltage generator (element 12 of Figure 2). It is believed that such components are not within that suggested by the applied art as to possible self-change components, for change by a physician or imaging apparatus trained medical assistant. There is no suggestion in the art of alerting physicians of this component being faulty and having the physician exchange the component.

Similarly, claim 12 has been amended to recite the apparatus having graphic information concerning how to user-exchange the self-change components. This graphic information provides the physician guidance in making the needed component exchange.

New claim 13 recites the present invention as a medical apparatus comprising plural components operatively connected to perform a medical function; and a self-test means for independently determining, through an intelligent self-test when a problem affecting the medical apparatus occurs, a problem-causing component from among the plural components, and displaying the problem-causing component on a display device. BABULA et al. is not believed to anticipate this recitation of the present invention.

Independent claim 13 has been amended to clarify that the self-test means for independently determining is free of

medically trained user input. That claim recites that this self-text is an intelligent self-test, without user interaction.

As in claim 1, claim 13 recites the problem-causing component being a self-change component which can be exchanged by an apparatus user without service support, and that the apparatus user is a physician or an imaging apparatus trained medical assistant.

For the reasons discussed above as to claim 1, claim 13 is believed non-obvious.

Dependent claim 15 has also been amended to recite the plural components include any one of an x-ray radiation source, a radiation detector system, and a high-voltage generator.

In view of the above, applicant believes that the present application is in condition for allowance and an early indication of the same is respectfully requested.

Please charge the terminal disclaimer fee of $110 to Deposit Account No. 25-0120.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any

overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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